

REMARKS

In the Office Action dated December 17, 2004, Claims 1-4 and 6-20 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,917,537, issued to Lightfoot et al. ("Lightfoot"). Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lightfoot taken in view of "automation of configuration" in a system, which the Examiner asserts was well known in the art at the time the invention was made. Applicants note that the Examiner has made some references to claim numbers that appear to be in error, as there are no claims presently in the application that correspond to those claim numbers. For example, there are references on Page 3 of the Office Action to rejections of claims numbered 39-40, 35, 36, and 37-38. Applicants respectfully request clarification.

Applicants respectfully traverse the rejections of Claims 1-20 as set forth in the Office Action. Without admitting the propriety of the rejections, Claims 2 and 12 have been canceled, and Claims 3 and 13 have been amended to more particularly point out and distinctly claim the subject matter which applicants regard as the invention. In addition, Claims 21 and 22 have been added. Further, applicants respectfully submit that Lightfoot and knowledge in the art at the time of making the invention, either alone or in combination, fail to teach or suggest viewing content as recited in Claims 1, 3-11, and 13-20, as currently amended, and in newly added Claims 21 and 22. Pursuant to 37 C.F.R. § 1.111, and the reasons set forth below, the applicants respectfully request reconsideration and allowance of this application.

Before discussing in detail the reasons why applicants believe that Claims 1, 3-11, and 13-22 are allowable, brief descriptions of the disclosed embodiments of the present invention and Lightfoot are provided in the following discussion. Applicants submit that the following discussion of the disclosed embodiments of applicants' invention and the discussion of the differences among the disclosed embodiments and the teachings of Lightfoot are not provided to

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

define the scope or interpretation of any of the claims. Instead, such discussed differences are provided to help the United States Patent and Trademark Office (hereinafter "the Office") better appreciate important claim distinctions discussed thereafter.

Summary of disclosed embodiments

In accordance with aspects of the present invention, a user model for interactive television systems is provided. In one aspect, the user model organizes access devices (e.g., set top boxes or STBs) into household objects (or simply "households"), with each access device in a household being logical extensions of each other. In particular, each access device has a corresponding access device "object" associated with a household.

In addition, each household can have multiple user objects, with each user object having its own independent configuration of attributes and data. This aspect of the present invention allows a user to create or reconfigure a user object by logging on to an authorized user object at any one of the access devices of the household. The other access devices (if any) in the household automatically receive the user object information of a new or reconfigured user object without any further action by the user. Thus, this aspect advantageously allows a single operation to configure and/or reconfigure all of the access devices in a household with the user object information of a new or revised user object.

In another aspect of the present invention, when a user adds a new access device to the household, the new access device automatically receives the user object information of user objects already existing in the household, without any further action by the user. In one embodiment, this automatic exchange of user object information is coordinated by a server that stores the configuration information of each household and its associated user objects. This server, for example, can be operated by a multiple service operator (MSO) or service provider. Alternatively, the server may be at a broadcast center for a satellite broadcast system.

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

Summary of Lightfoot

Lightfoot is directed to a system for controlling the routing and transmission of information between subscribers and multiple information service providers over a broadband network, including processing of billing information and session management. For example a centralized gateway in the broadband network generates menus of providers that are transmitted to subscribers, and from which subscribers can select those providers from which they wish to receive content. Subscribers can also use the menu to limit access to the providers from which content may be received through the use of PIN number functionality, e.g., to permit parents to limit the providers from which their children can receive content.

In the passages cited by the Examiner to support the rejection of the claims in the present application, Lightfoot discloses a network architecture utilizing the centralized gateway that shows a household with multiple televisions, each attached to its own set top terminal, identified as digital entertainment terminals ("DETs"). (Lightfoot, Figure 3B described at Col. 25, lines 34-64). The Examiner concludes that Lightfoot teaches that a user may control the DETs from a certain DET by allowing a member of the household, such as a parent, to limit the hours of service to the DETs and to override that limit using the menus that were transmitted by the centralized gateway and PIN number functionality. (Lightfoot, Col. 16, lines 25-40). Applicants respectfully disagree with the Examiner's conclusion. Applicants submit that Lightfoot fails to teach or suggest organizing multiple access devices, such as set top boxes, in a household as claimed, as will be explained in detail below.

Rejection of Claims 1-4 and 6-20 under 35 U.S.C. § 102(b) as being anticipated by Lightfoot

The Examiner has cited numerous passages from Lightfoot to support rejections of Claims 1-4 and 6-20 as being anticipated by Lightfoot. Applicants respectfully disagree with the claim rejections.

Claim 1 recites as follows:

1. A system for viewing multimedia content, the system comprising:
 - a communication network;
 - a content source coupled to the communication network;
 - a broadcast center coupled to the communication network; and
 - a plurality of client systems coupled to the broadcast center, wherein the plurality of client systems is associated with a household, *the plurality of client systems being logical extensions of each other.* (Emphasis added.)

As already noted, the Examiner cites in particular Figure 3B of Lightfoot, which illustrates a household having multiple televisions, each connected to a DET, which are, in turn, connected to a video distribution system, such as a cable television ("CATV") system. The Examiner argues that the limitations of Claim 1 reciting the *plurality of client systems coupled to the broadcast center, wherein the plurality of client systems is associated with a household, and the plurality of client systems being logical extensions of each other* reads on Figure 3B of Lightfoot, because it "discusses a plurality of user DET(s), within a household." (Office Action, P. 2, para. no. 2) Applicants respectfully disagree.

The illustration in Figure 3B of Lightfoot and accompanying disclosure simply shows a household that has multiple televisions, each connected to their own set top box. Lightfoot discloses nothing about how those set top boxes and televisions may be organized in the household, much less whether they are *logical extensions of each other* as recited in Claim 1. If

anything, the cited and other passages in Lightfoot teach away from the limitations recited in independent Claim 1, as they indicate that the DET(s) are not organized in any fashion whatsoever. Rather, the DET(s) in Lightfoot appear to be conventional set top boxes whose only connection with one another is that more than one DET may reside in the same physical location, i.e., in the same household, for subscribers that want to receive services on more than one television.

For example, Lightfoot states the "[g]ateway would monitor the number of hours of service provided to that subscriber's DET(s) and would terminate service to that subscriber's DET(s) if usage exceeded the threshold number input by the subscriber." (Lightfoot, Col. 16, lines 34-38). Clearly, this statement indicates that there is no distinction between whether the subscriber had one DET or multiple DETs -- the limitation is simply applied by the centralized gateway to however many DETs the subscriber happens to have in their home. Indeed, the DETs in Lightfoot are not disclosed to possess or to be encoded with any configuration information that would suggest that they are logically related to one another, except for the fact that they are shown in physical proximity to one another in the same household. Thus, at most, the DETs in Lightfoot are merely physical extensions over which the subscriber may receive services, but are not *logical extensions of each other* as recited in Claim 1.

In support of the rejection of Claim 3, the Examiner argues that the "claimed plurality of user objects reads on the various services that may be selected from a menu and the restrictions that may be placed upon such selections," citing Lightfoot, Col. 4, lines 20-30, and Col. 11, lines 55-65. Applicants respectfully disagree.

The Examiner is apparently equating a plurality of user objects with subscriber services appearing on a menu. Applicants submit that subscriber services appearing on a menu are not a *plurality of user objects* as recited in Claim 3. At best, the cited passages in Lightfoot merely

indicate that a subscriber may enter a selection from a menu transmitted by the centralized gateway to a DET for display on their televisions. A service selected from a menu by a subscriber has nothing in common with a plurality of user objects, in each of which information specific to one of a plurality of users in a household is maintained, such as a specific user's passwords associated with particular services. The passages disclose nothing that would even suggest *configuring a household* so that it is *associated with a plurality of user objects* as recited in Claim 3.

In support of the rejection of Claim 4, the Examiner argues that Lightfoot discloses that "a user may control a plurality of DET(s) from a certain DET," citing Lightfoot, Col. 16, lines 25-40. (Office Action, Page 3, first paragraph). Applicants respectfully disagree.

Applicants have carefully reviewed the cited passage and other passages in Lightfoot, and have found nothing that discloses that one DET has control over another. The applicants question the conclusion by the Examiner that a certain DET could control the other DETs, as there is no reference to any particular DET operating any differently than other DETs in the same household in Lightfoot. Accordingly, nothing in Lightfoot discloses a client system that is "selectively accessed by a user *to change a configuration of a user object*, and "provid[ing] the *change to all of the client systems* without further activity from the user," as recited in Claim 4.

In support of the rejection of Claim 6-7, the Examiner argues that "the claimed user object reads on subscriber service menus, which are concurrently active in the plurality of cable boxes." (Office Action, Page 3, second paragraph). Applicants respectfully disagree.

The Examiner is apparently equating a user object with a subscriber service menu. Applicants submit that a subscriber service menu is not a user object. Moreover, a subscriber service menu in Lightfoot is disclosed as a menu that is generated by the centralized gateway and transmitted to the DETs without reference to any particular user in the household. In particular,

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{LLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

the gateway provided menus are arbitrary and dictated by the operators that provide the network over which the information service providers offer their services. This is evident in Col. 11, lines 60-67, where Lightfoot indicates that the information on the menu is kept alphabetically, but may be rearranged at random on some periodic basis. Thus, the services and the restrictions on the services are imposed by the centralized gateway, and have nothing in common with the kinds of user information maintained in the user objects, which are specific to the user and include such information as a specific user's passwords associated with particular services. At best, Lightfoot indicates that the gateway will recognize a particular *customer's* DET and transmit a customized menu listing to the customer's DET. (Lightfoot, Col. 12, lines 1-7.) But there is no indication that the menu is customized for a particular *user* in the customer's household or that it is customized any differently for one DET located in the customer's household as another DET located in the same household. Accordingly, nothing in Lightfoot discloses a "*user object*" as recited in Claims 6 and 7.

In support of the rejection of Claim 8, the Examiner argues that the disclosure in Lightfoot "inherently includes a server or headend that includes information related to each user object." (Office Action, Page 3, third paragraph). Applicants respectfully disagree.

Lightfoot only indicates that the centralized gateway has information about a *subscriber* or *customer*, and not a particular user. For example, the centralized gateway has information about how the customer wants their menus to appear (regardless of the number of users or DETs in the household), or the information services to which a subscriber has subscribed (again, regardless of the number of DETs or users in the household). Nothing in Lightfoot indicates that the gateway or any other part of the network has information about a particular user in a household. Accordingly nothing in Lightfoot teaches or suggests that a "server is configured to

include information *related to each user object of the plurality of user objects*," as recited in Claim 8.

In support of the rejections in Claims 9-10, the Examiner asserts that "the claimed revision history reads on the headend/server keeping track of a user's changes made to restrictions for services," again citing Lightfoot, Col. 16, lines 25-40. (Office Action, Page 3, fourth paragraph). Applicants respectfully disagree.

The only relevant disclosure in Lightfoot appears to be the existence of restrictions that a subscriber makes for the entire household -- there is nothing in Lightfoot to suggest that separate restrictions are tracked for individual users in the household. Accordingly, there is nothing in Lightfoot that discloses a "*revision history*" as recited in Claims 9-10.

In support of the rejections in Claims 9-10, the Examiner further asserts that "the claimed ticket number reads on any ID number used by Lightfoot to coordinate a particular subscriber's request with the instant subscriber," and that such information is stored, citing Lightfoot, Col. 4, lines 1-10. (Office Action, Page 3, fourth paragraph). Applicants respectfully disagree.

The fact that the ID numbers in Lightfoot are used to coordinate a particular subscriber's request with the subscriber suggests that the ID numbers are not used to coordinate information related to a user in the subscriber's household. Accordingly, there is nothing in Lightfoot that discloses a "*ticket number associated with each configuration change*" [to a user object] as recited in Claim 10.

In support of the rejections in Claims 11-13, and 20, citing the same passage in Lightfoot that was cited in support of the rejection of Claim 4, the Examiner asserts that "the claimed method of controlling access to a plurality of access devices, comprising receiving configuration information related to a user object from a user via an access device and providing the received configuration information to another access device of the plurality of access devices, reads on the

operation of Lightfoot that teaches a user's requested limitations on content being transmitted from a server to a household to control a plurality of DET(s)," citing Lightfoot, Col. 16, lines 25-44. (Office Action, Page 3, fifth paragraph).

First, applicants note it is unclear what language in Claims 11-13 and 20 to which the Examiner is referring, as the language that the Examiner used to paraphrase the claimed method does not appear to follow the limitations set forth in those claims. Applicants request allowance of Claims 11-13 and 20, or at a minimum, clarification of the rejections of Claims 11-13 and 20.

In any event, as noted earlier, Lightfoot only indicates that the centralized gateway has information about a *subscriber* or *customer*, and not a user. Contrary to the Examiner's assertions, nothing in Lightfoot teaches that the centralized gateway receives configuration information related to a user object from a user. Moreover, Claims 11-13 and 20 contain limitations similar to those in Claims 1-3 and 10, and are patentable over Lightfoot for the same reasons already discussed above with reference to those claims.

In support of the rejections of Claims 18-19, the Examiner asserts "that since Lightfoot is directed to MPEG transmission, the information is inherently in a bit format." It is not clear to applicants what bearing this has on Claims 18-19. Applicants respectfully request allowance of Claims 18-19, or at a minimum, clarification of the rejections of Claims 18-19.

Rejection of Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Lightfoot

In support of the rejection of Claim 5, the Examiner asserts that Lightfoot "support[s] a plurality of clients," and that "necessarily clients systems may be added." The Examiner concedes, however, that Lightfoot does not explicitly disclose that user objects would be configured on the new client without user intervention. Nevertheless, the Examiner argues that "automation of configuration" was well known in the art at the time the invention was made, and

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{LLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

that it would have been obvious for one of ordinary skill in the art to "operate Lightfoot in a manner wherein upon adding a client system, at least some parameters are automatically loaded, such as household ID, and other generic data." (Office Action, Page 4, last paragraph). Applicants respectfully disagree.

Nothing in Lightfoot discloses a *user object* as recited in Claim 5. Thus it is irrelevant whether automatic configuration was well known in the art. There is simply nothing in Lightfoot that would teach or suggest a user object, much less "*provid[ing] the plurality of user objects to the new client system,*" as recited in Claim 5.

New Claims 21 and 22

Applicants have added two new claims, Claims 21-22. The claims contain limitations similar to the limitations of 1-5, and 11-15, and are allowable over Lightfoot for the same reasons that were discussed above with reference to those claims.

CONCLUSION

In view of the foregoing remarks, applicants submit that all of the claims in the present application are patentably distinguished over the teaching of Lightfoot. Applicants respectfully request reconsideration and allowance of Claims 1, 3-11, and 13-20, and consideration and allowance of new claims, Claims 21-22. Independent Claims 1, 11, and 21 are clearly and patentably distinguishable over the cited and applied references. Claims 3-10, 13-20, and 22 are allowable because they depend from allowable independent Claims 1, 11, and 21, and because of their additional limitations, some of which have been discussed above. Accordingly, applicants submit that this application is in condition for allowance, and passing of the application to issue at an early date is solicited. If the Examiner has any remaining questions concerning this

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

application, the Examiner is invited to contact applicants' undersigned attorney at the number below.

Respectfully submitted,

CHRISTENSEN O'CONNOR
JOHNSON KINDNESS^{PLLC}



Kevan L. Morgan
Direct Dial No. 206.695.1712
E-Mail Address: kevan@cojk.com

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LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100